

# MINOLTA

The essentials of imaging

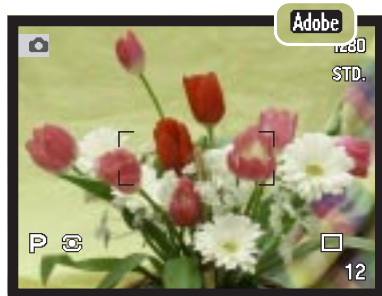
[www.minolta.com](http://www.minolta.com)



## ***DiMAGE 7Hi***

## COLOR MODE

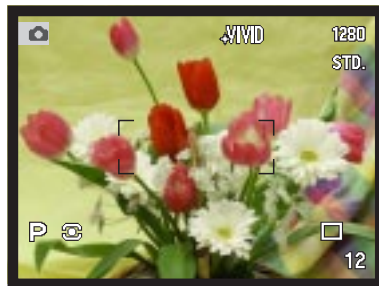
The color mode controls whether a still image is color or black and white as well as the color space. The color mode is set in the advanced 2 section of the recording-mode menu (p. 80). The live image on the monitors will reflect the selected color mode. For more on the color mode see page 98.



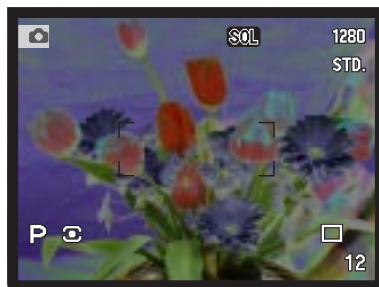
**Natural Color and Adobe RGB** - reproduces the colors in the scene faithfully.



**Black & White** - produces monochrome images.



**Vivid Color** - increases the saturation of the colors in the scene.



**Solarization** - produces a partial reversal of tones in the image.

## BEFORE YOU BEGIN

Thank you for purchasing this Minolta digital camera. Please take the time to read through this instruction manual so you can enjoy all the features of your new camera.

This manual contains information regarding products introduced before September, 2002. To obtain compatibility information for products released after this date, contact a Minolta Service Facility listed on the back cover of this manual.

Check the packing list before using this product. If any items are missing, immediately contact your camera dealer.

Minolta DiIMAGE digital camera  
Ni-MH batteries (set of four)  
Ni-MH battery charger set  
Neck strap NS-DG1000  
Lens shade DLS-7Hi  
Lens cap L -1249  
Accessory shoe cap SC-9

16MB CompactFlash card  
AV cable AVC-300  
USB cable USB-100  
DiIMAGE software CD-ROM  
DiIMAGE Viewer instruction manual  
Camera instruction manual  
Warranty card

This product is designed to work with accessories manufactured and distributed by Minolta. Using accessories or equipment not endorsed by Minolta may result in unsatisfactory performance or damage to the product and its accessories.

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## FOR PROPER AND SAFE USE

Read and understand all warnings and cautions before using this product.

### WARNING

Using batteries improperly can cause them to leak harmful solutions, overheat, or explode which may damage property or cause personal injury. Do not ignore the following warnings.

- Only use the batteries specified in this instruction manual.
  - Do not install the batteries with the polarity (+/–) reversed.
  - Do not use batteries which show wear or damage.
  - Do not expose batteries to fire, high temperatures, water, or moisture.
  - Do not attempt to short or disassemble batteries.
  - Do not store batteries near or in metallic products.
  - Do not mix batteries of different types, brands, ages, or charge levels.
  - Do not charge alkaline batteries.
  - When recharging rechargeable batteries, only use the recommended charger.
  - Do not use leaking batteries. If fluid from the batteries enters your eye, immediately rinse the eye with plenty of fresh water and contact a doctor. If fluid from the batteries makes contact with your skin or clothing, wash the area thoroughly with water.
- 
- Use only the specified AC adapter within the voltage range indicated on the adapter unit. An inappropriate adapter or current may cause damage or injury through fire or electric shock.
  - Do not disassemble this product. Electric shock may cause injury if a high voltage circuit inside the product is touched.
  - Immediately remove the batteries or unplug the AC adapter and discontinue use if the camera is dropped or subjected to an impact in which the interior, especially the flash unit, is exposed. The flash has a high voltage circuit which may cause an electric shock resulting in injury. The continued use of a damaged product or part may cause injuries or fire.

- Keep batteries or small parts that could be swallowed away from infants. Contact a doctor immediately if an object is swallowed.
- Store this product out of reach of children. Be careful when around children, not to harm them with the product or parts.
- Do not fire the flash directly into the eyes. It may damage eyesight.
- Do not fire the flash at vehicle operators. It may cause a distraction or temporary blindness which may lead to an accident.
- Do not use the monitor while operating a vehicle or walking. It may result in injury or an accident.
- Do not use this product in a humid environment, or operate this product with wet hands. If liquid enters the product, immediately remove the batteries or unplug the AC adapter and discontinue use. The continued use of a product exposed to liquids may cause damage or injury through fire or electric shock.
- Do not use the product near inflammable gases or liquids such as gasoline, benzene, or paint thinner. Do not use inflammable products such as alcohol, benzene, or paint thinner to clean the product. The use of inflammable cleaners and solvents may cause an explosion or fire.
- When unplugging the AC adapter, do not pull on the power cord. Hold the adapter unit when removing it from an outlet.
- Do not damage, twist, modify, heat, or place heavy objects on the AC adapter cord. A damaged cord may cause damage or injury through fire or electric shock.
- If the product emits a strange odor, heat, or smoke, discontinue use. Immediately remove the batteries taking care not to burn yourself as the batteries become hot with use. The continued use of a damaged product or part may cause injuries or fire.
- Take the product to a Minolta Service Facility when repairs are required.

## CAUTION

- Do not use or store the product in a hot or humid environment such as the glove compartment or trunk of a car. It may damage the product and batteries which may result in burns or injuries caused by heat, fire, explosion, or leaking battery fluid.
- If batteries are leaking, discontinue use of the product.
- The camera temperature rises with extended periods of use. Care should be taken to avoid burns.
- Burns may result if the CompactFlash card or batteries are removed immediately after extended periods of use. Turn the camera off and wait for it to cool.
- Do not fire the flash while it is in contact with people or objects. The flash unit discharges a large amount of energy which may cause burns.
- Do not apply pressure to the LCD monitor. A damaged monitor may cause injury, and the liquid from the monitor may cause inflammation. If liquid from the monitor makes contact with skin wash the area with fresh water. If liquid from the monitor comes in contact with the eyes, immediately rinse the eyes with plenty of water and contact a doctor.
- The rim of the lens hood can cause injury. Take care not to accidentally strike anyone with the camera when the lens hood is attached.
- When using the AC adapter, insert the plug securely into the electrical outlet.
- Do not use if the AC adapter cord is damaged.
- Do not cover the AC adapter. A fire may result.
- Do not obstruct access to the AC adapter; this can hinder the unplugging of the unit in emergencies.
- Unplug the AC adapter when cleaning or when the product is not in use.

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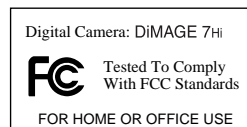
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The following marks may be found on the product:



This mark on your camera certifies that this camera meets the requirements of the EU (European Union) concerning interference causing equipment regulations. CE stands for Conformité Européenne (European Conformity).



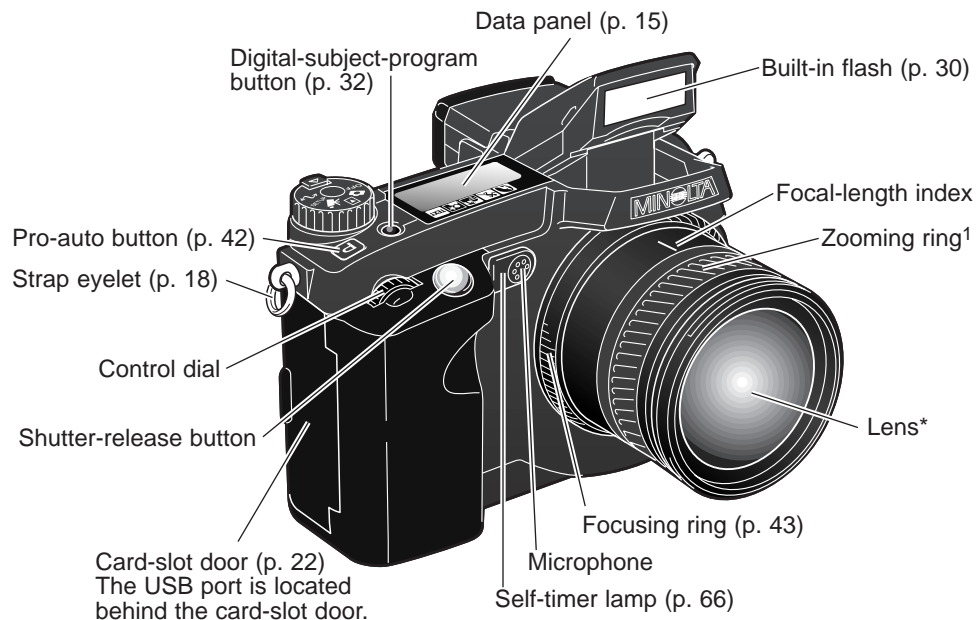
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.  
Tested by the Minolta Corporation  
101 Williams Drive, Ramsey, New Jersey 07446, U.S.A.  
Do not remove the ferrite cores from the cables.

This Class B digital apparatus complies with Canadian ICES-003.  
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

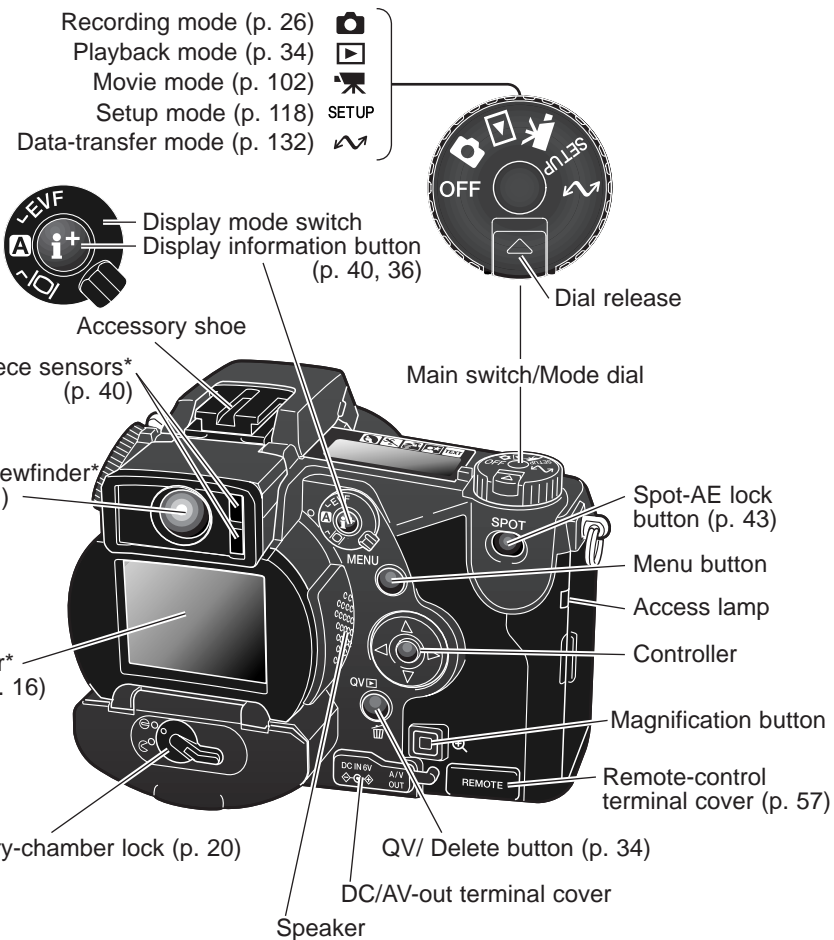
# NAMES OF PARTS

## CAMERA BODY

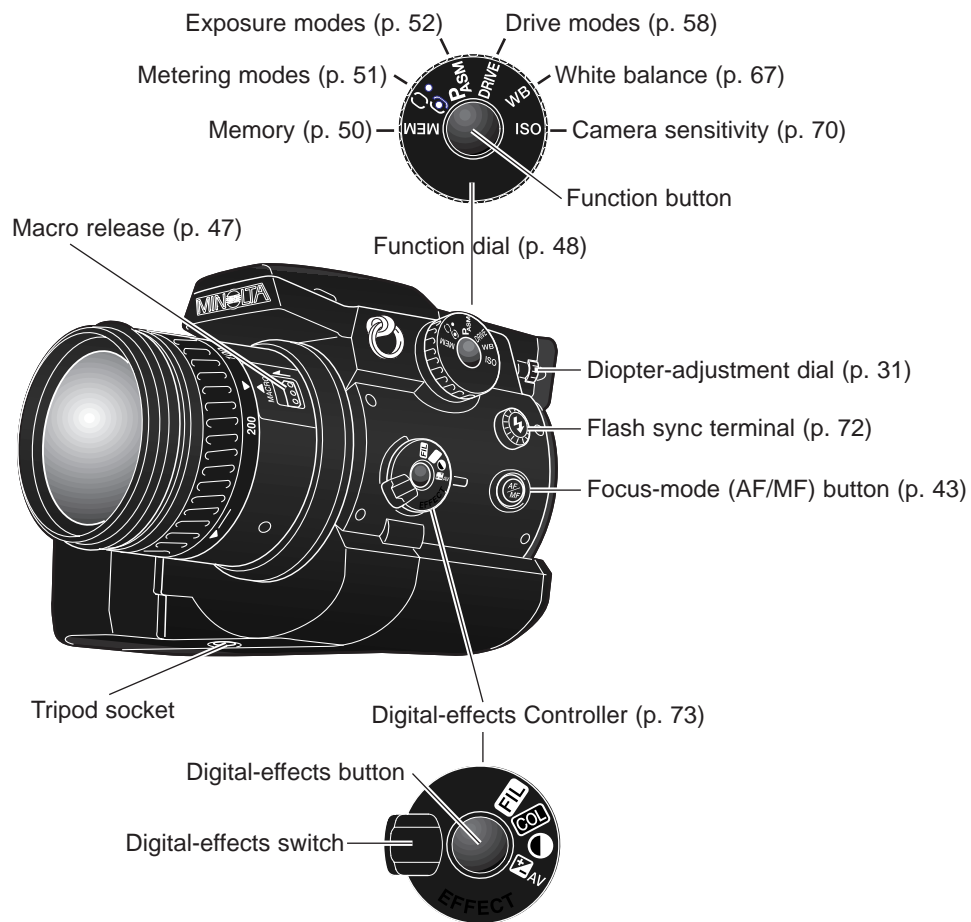
\* This camera is a sophisticated optical instrument. Care should be taken to keep these surfaces clean. Please read the care and storage instructions in the back of this manual (p. 148).



<sup>1</sup> The focal-length scale on the zooming ring is given in 35mm focal-length equivalents. The DiMAGE Viewer software supplied with the camera can display the actual focal length used to capture the recorded image as well as the equivalent focal length in 35mm photography.

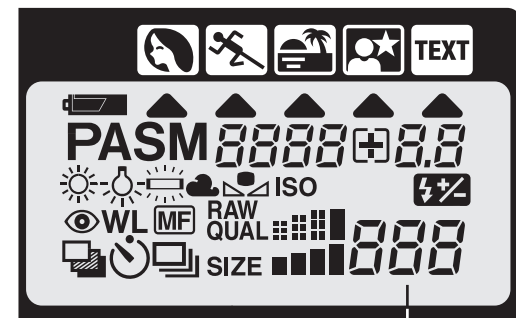




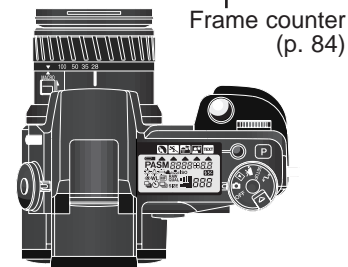


## DATA PANEL

Located on the top of the camera body, the data panel shows the status of the camera. All icons have been shown for clarity.



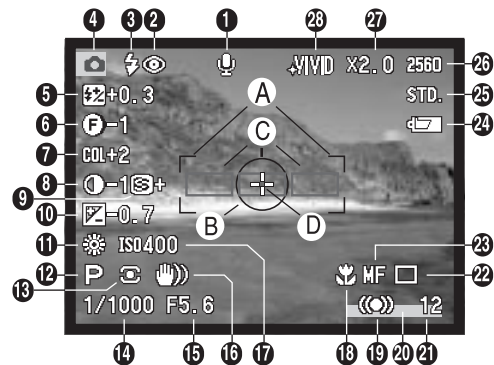
- Digital-subject-program icons (p. 32)
- Digital-subject-program indicators (p. 32)
- Battery-condition indicator (p. 21)
- PASM** Exposure-mode indicators (p. 52)
- White-balance indicators (p. 67)
- ISO** Camera-sensitivity indicator (p. 70)
- Flash-compensation indicator (p. 74)
- Red-eye reduction indicator (p. 88)
- WL** Wireless/Remote flash indicator (p. 90)
- MF** Manual-focus indicator (p. 43)
- Drive-mode indicators (p. 58)
- RAW QUAL** Image-quality display (p. 85)
- SIZE** Image-size display (p. 84)
- 8888** Shutter-speed and aperture display / exposure/flash compensation display



The frame counter cannot exceed 999. When the number of recordable images exceeds this, 999 will be displayed. The frame counter will continue to count down when the number of recordable images falls below one thousand.



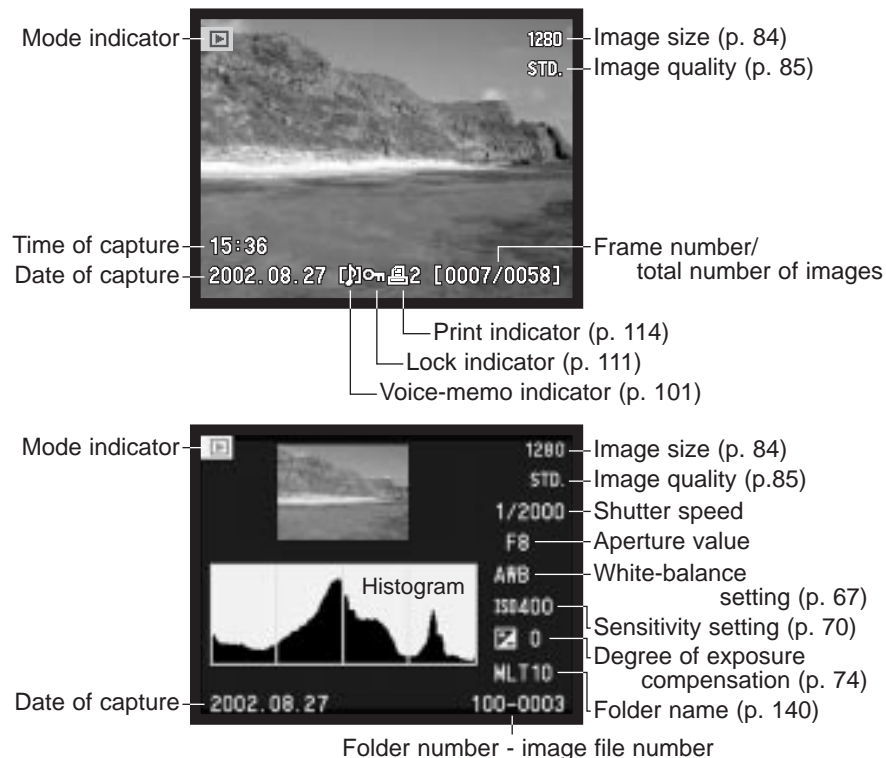
## MONITOR DISPLAY - RECORDING MODE



1. Microphone indicator
2. Flash-mode indicator (p. 88)
3. Flash signal (p. 30)
4. Mode indicator
5. Flash-compensation display (p. 74)
6. Filter display (p. 77)
7. Color-saturation-compensation display (p. 77)
8. Contrast-compensation display (p. 76)
9. Sharpness display (p. 99)
10. Exposure-compensation display (p. 74)
11. White-balance indicator (p. 67)
12. Exposure-mode/Digital-subject-program indicator (p. 52, 32)
13. Metering-mode indicator (p. 51)
14. Shutter-speed display
15. Aperture display
16. Camera-shake warning (p. 31)
17. Camera-sensitivity (ISO) display (p. 70)
18. Macro-mode indicator (p. 47)
19. Focus signal (p. 29)
20. Data-imprinting indicator (p. 97)
21. Frame counter (p. 84)
22. Drive-mode indicator (p. 58)
23. Manual-focus indicator (p. 43)
24. Battery-condition indicator (p. 21)
25. Image-quality indicator (p. 85)
26. Image-size display (p. 84)
27. Digital-zoom display (p. 46)
28. Color-mode indicator (p. 98)

- A. Focus frame  
 B. Spot metering area (p. 51)  
 C. AF sensors  
 D. Flex Focus Point (p. 45)

## MONITOR DISPLAY - QUICK VIEW & PLAYBACK MODE



The black area of the histogram shows the luminance distribution of the recorded image from black (left) to white (right). Each one of the 256 vertical lines indicates the relative proportion of that light value in the image. The histogram can be used to evaluate exposure and contrast, but displays no color information.

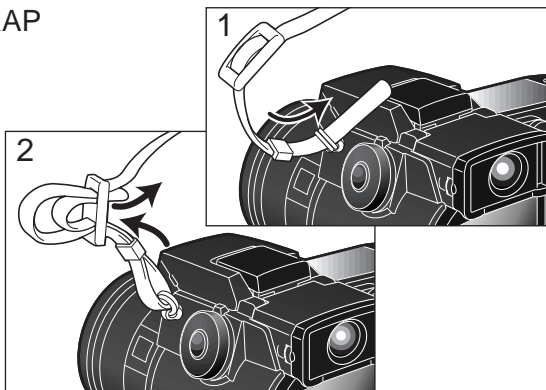
## GETTING UP AND RUNNING

This section covers the preparation of the camera. This includes the changing of batteries and memory card as well as the use of external power supplies.

### ATTACHING THE CAMERA STRAP

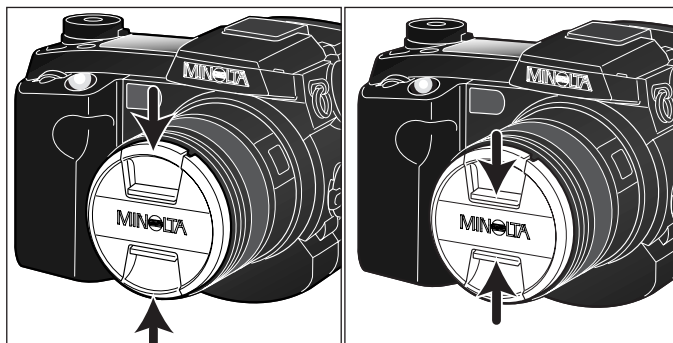
Attach the camera strap to the strap eyelets as shown. Always keep the camera strap around your neck in the event that you drop the camera.

The neck strap is made with leather. Water may stain the strap. When the strap is wet or in contact with light colored material, the strap may stain the wearers clothing.



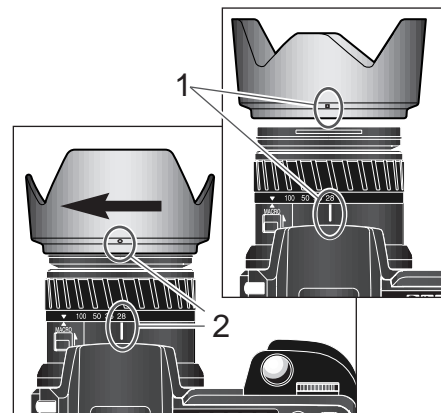
### REMOVING THE LENS CAP

Using your thumb and index finger, pinch the inside or outside tabs of the lens cap to remove. When the camera is not in use, always replace the lens cap.



## ATTACHING THE LENS HOOD

The lens hood is used to control stray light from entering the lens and causing flare. When using the camera under bright light, the use of the lens hood is recommended. The lens hood should not be used with the built-in flash as it can cause a shadow.



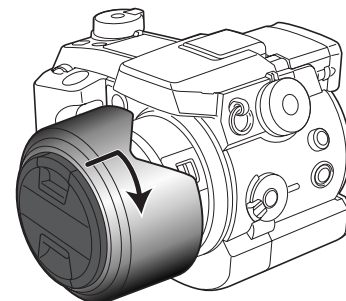
To mount the lens hood, align the rectangular dimple on the rim of the hood with the focal-length index on the top of the lens barrel (1).

Slide the hood onto the end of the lens and turn it 90° clockwise until it clicks and the circular dimple is aligned with the focal-length index (2). When mounted correctly, the large petals of the lens hood should be to the top and bottom. Never force the lens hood. If it does not fit, check its orientation. To detach the lens hood, turn it 90° counterclockwise and remove.

The lens hood can be reverse mounted when the camera is not in use.

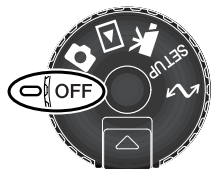
With one of the large petals to the top, slide the hood onto the end of the lens. Turn it 90° clockwise until it clicks into place.

The lens hood can be attached or removed with the lens cap on the camera. To detach the lens hood, turn it 90° counterclockwise and remove.

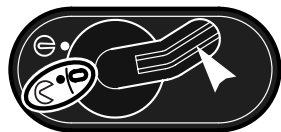


## INSTALLING AND CHANGING BATTERIES

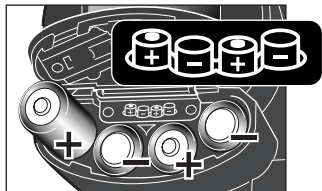
This digital camera uses four AA-size nickel-metal hydride (Ni-MH) batteries. When using new Ni-MH batteries, fully charge them before their initial use.



When replacing batteries, check that the mode dial is in the off position.



Open the battery-chamber door by moving the battery-chamber lock to the open position.



Insert the batteries. Make sure the positive and negative battery terminals are orientated as illustrated on the diagram in the battery chamber.



Close the battery-chamber door and slide the lock lever to the close position.

Although alkaline batteries can be used with this product, their performance will be limited. Only use alkaline batteries for test photographs or when Ni-MH batteries, the Minolta External High-power Battery Pack, or AC adapter are not available.

## BATTERY CONDITION INDICATOR

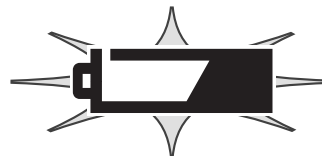
This camera is equipped with an automatic battery-condition indicator. When the camera is on, the battery-condition indicator appears on the data panel and monitors. The monitor icon will change from white to red when battery power is low. If the data panel and monitors are blank, the batteries may be dead or installed incorrectly.



Full-battery - the batteries are fully charged. This icon is displayed for five seconds on the monitors when the camera is turned on. The icon remains on the data panel.



Low battery warning - battery power is very low, but all functions are operational. The batteries should be replaced as soon as possible. This warning automatically appears and remains on the display until the batteries are changed.



Blinking low battery warning - displayed on the data panel with no other icons. Power is insufficient for camera operation. The shutter will not release. Replace or recharge the batteries immediately.

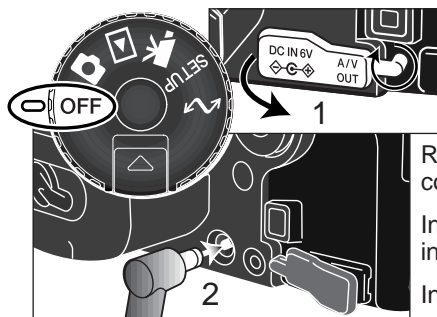
## AUTO POWER SAVE

To conserve battery power, the camera will turn off displays and unnecessary functions if an operation is not made within a certain period. The LCD monitor will turn off after thirty seconds, and the EVF and data panel turn off after one minute. To restore the displays, press the shutter-release button partway down or press the display-information button. The length of the auto-power-save period for the EVF and data panel can be changed in the advanced 2 section of the setup menu (p. 118).

## EXTERNAL POWER SUPPLIES (SOLD SEPARATELY)

The AC Adapter allows the camera to be powered from an electrical household outlet. The AC Adapter is recommended when the camera is interfaced with a computer or during periods of heavy use. AC Adapter model AC-1L is for use in North America, Japan, and Taiwan, and AC-2L is for use in all other areas.

The External High-power Battery Pack Kit EBP-100 is a portable power source and significantly extends the operating time of the camera. The kit contains a high-power lithium-ion battery, holder, and charger. The battery, holder, and charger are also available separately.



⚠ Always turn off the camera and confirm the access lamp is not lit before changing between power supplies.

Remove the DC terminal cover from the left (1). The cover is attached to the body to prevent loss.

Insert the mini plug of the AC adapter or battery pack into the DC terminal (2).

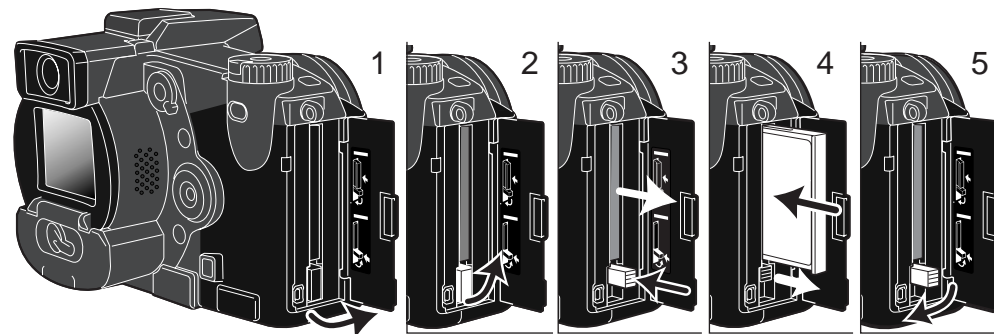
Insert the AC adapter plug into an electrical outlet.

## INSERTING AND CHANGING A MEMORY CARD



Always turn off the camera and confirm the access lamp is not lit before inserting or removing a memory card, otherwise the card may be damaged, and data lost.

A memory card must be inserted for the camera to operate. If a card has not been inserted, a no-card warning will be displayed on the monitors. Type I and II CompactFlash cards and IBM Microdrives are compatible with this camera. For memory card care and handling, see page 149.



Open the card-slot door in the direction indicated (1).

To eject a memory card, lift (2) then press (3) the card-eject lever. The card can now be pulled out. Take care when removing the card as it becomes hot with use.

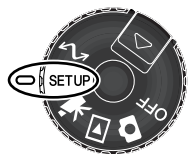
Insert a memory card into the card slot until the card-eject lever pops out (4). Insert the card so the face is toward the front of the camera. Always push the card in straight. Never force the card. If the card does not fit, check that it is orientated correctly.

Fold the card-eject lever down as shown (5) and close the card-slot door.

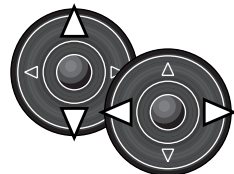
If the card-not-recognized message appears, the inserted card in the camera may need to be formatted. A memory card used in another camera may have to be formatted before being used. If the unable-to-use-card message appears, the card is not compatible with the camera and should not be formatted. A card can be formatted in the basic section of the playback menu (p. 106). When a card is formatted, all the data on the card is permanently erased. If the card-error message appears, press the central button of the controller to close the window; check the Minolta web site for the latest compatibility information: North America: <http://www.minoltausa.com>, Europe: [http://www.minoltaeurope.com/pe/digital/languages\\_stage.html](http://www.minoltaeurope.com/pe/digital/languages_stage.html).

## SETTING THE DATE AND TIME

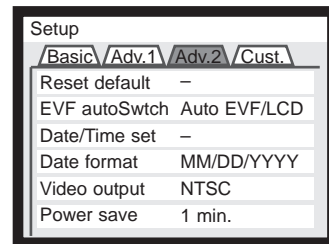
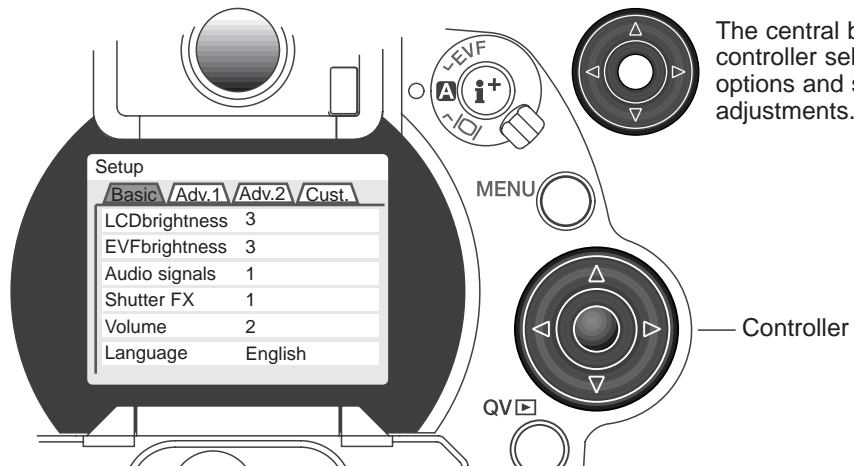
After initially inserting a memory card and battery, the camera's clock and calendar must be set. When images are recorded, the image data is saved with the date and time of recording. Depending on the region, the menu language may also have to be set. To change the language, see the camera notes on the following page.



Turn the mode dial on the top of the camera to the setup position. The camera will turn on and the setup menu will be displayed.



Navigating the menu is simple. The up/down and left/right keys of the controller (1) move the cursor and change settings on the menu.



Advanced 2 section



Use the right controller key to highlight the advanced 2 tab at the top of the menu.



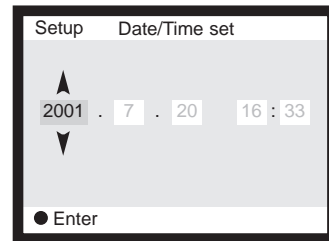
Use the down key to highlight the date/time-set menu option.



Press the right key. "Enter" will appear on the right side of the menu.



Press the central button to display the date/time setting screen.



Date/Time setting screen



Use the left and right keys to select the item to be changed.



Use the up and down keys to adjust the item.



Press the central button to set the clock and calendar. The setup menu will be displayed.

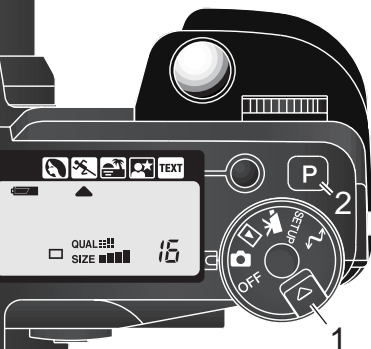
## Camera notes

For customers in certain areas, the menu language must also be set. Highlight the language option in the basic section of the setup menu. Press the right key to display the language settings. Using the up/down keys, highlight the desired language. Press the central button to set the highlighted language; the setup menu will be displayed in the selected language.



## BASIC RECORDING

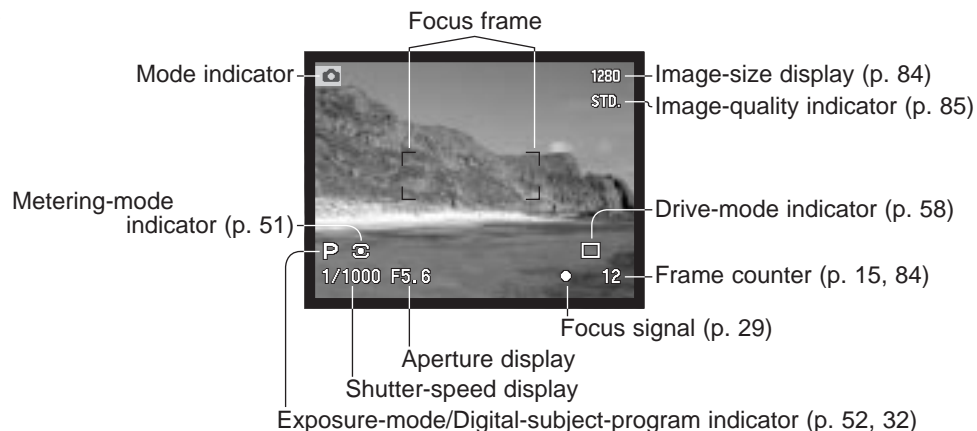
### SETTING THE CAMERA TO RECORD IMAGES AUTOMATICALLY



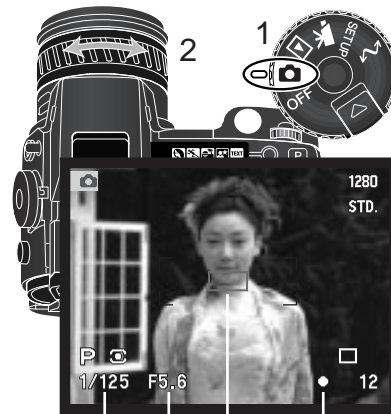
While holding in the dial release (1), turn the mode dial to still-image recording; the electronic viewfinder (EVF) and LCD monitor will activate. Press the pro-auto button (2) to reset the programmed and automatic functions.

All camera operations are now fully automatic. The autofocus, exposure, and imaging systems will work together to bring professional results effortlessly.

### EVF AND LCD MONITOR DISPLAY



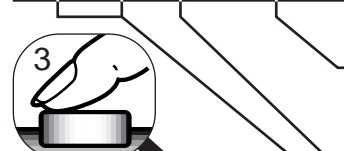
## BASIC RECORDING OPERATION



Turn the mode dial to the recording position (1). Use the zooming ring to frame the subject (2). The effect of the zoom is immediately displayed in the viewfinder (EVF) and LCD monitor.

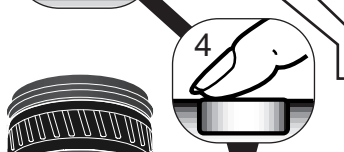
Place the subject within the focus frame.

- For off-center subjects use the focus-lock function (p. 28).
- Make sure the subject is within the focus range of the lens: 0.5m (1.6ft) - ∞. For subjects closer than 0.5m, use the macro function (p. 47).



Press the shutter-release button partway down (3) to lock the focus and exposure.

- The focus signals (p. 29) on the monitors will confirm that the image is in focus. If the focus signal is red, the camera was unable to focus on the subject. Repeat the previous steps until the signal is white.



- When the focus is set, an AF sensor will briefly appear in the live image to indicate the point of focus.
- The shutter speed and aperture value will change from white to black indicating the exposure is locked.
- The live image may freeze for an instant as the AF system determines focus.

Press the shutter-release button all the way down (4) to take the picture.

The access lamp will glow indicating the image data is being written to the memory card. Never remove a card while data is being transferred.

## FOCUS LOCK

The focus-lock function is used when the subject is off-center and outside the focus frame. Focus lock may also be used when a special focusing situation prevents the camera from focusing on the subject.



Place the subject within the focus frame. Press and hold the shutter-release button partway down.

- The focus signals will indicate that the focus is locked. The shutter speed and aperture value will change from white to black indicating the exposure is locked.
- When the focus is set, an AF sensor will briefly appear on the live image to indicate the point of focus.



Without lifting your finger from the shutter-release button, recompose the subject within the image area. Press the shutter-release button all the way down to take the picture.

## AUTOMATIC MONITOR AMPLIFICATION

In extremely low-light conditions when the camera-sensitivity gain has reached its limit, the automatic monitor-amplification function will intensify the EVF and LCD monitor image. The live image will be brighter, however, the display will be black and white. This will have no effect on the final color image.

When the automatic monitor amplification activates, the electronic-magnification function (p. 95) cannot be used. If the real-time histogram (p. 40) is used, the display will reflect the amplified image and not the final values of the exposure.

## FOCUS SIGNALS

This digital camera has a quick, accurate autofocus system. The focus signals in the lower right corner of the EVF and LCD monitor indicate the focus status. For more information on autofocus modes see p. 83.



**White focus indicator** - focus confirmed.

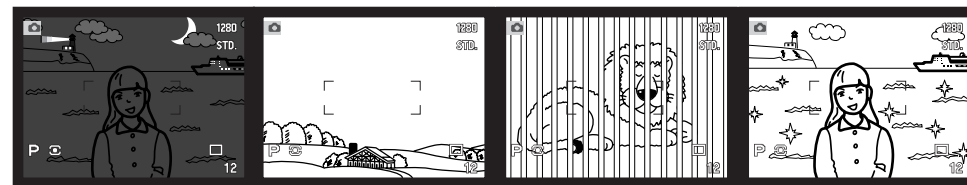


**Red focus indicator** - the subject is too close or a special situation is preventing the AF system from focusing. The shutter can be released.

When the AF system cannot focus, the focus is set between 5 m and infinity (16.4 ft and  $\infty$ ). When the flash is in use, the focus is set between 3.0 m and 3.8 m (9.8 ft and 12.5 ft). In this case, focus lock can be used with an object at the same distance as the main subject or the camera can be focused manually (p. 43).

## SPECIAL FOCUSING SITUATIONS

The camera may not be able to focus in certain situations. If the autofocus system cannot focus on a subject, the focus icon will turn red. In this situation the focus-lock function can be used to focus on another object at the same distance as your main subject, and then the image can be recomposed to take the picture.



The subject is too dark.

The subject in the focus frame is low in contrast.

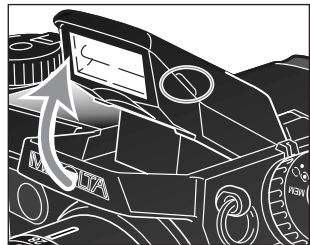
Two subjects at different distances overlap in the focus frame.

The subject is near a very bright object or area.



## USING THE BUILT-IN FLASH

In low-light conditions or indoors, the flash is needed to illuminate the subject and reduce blurring through camera shake. The flash can also be used as a fill light in direct sunlight to soften harsh shadows. Always remove the lens hood when using the built-in flash; the hood may cast a shadow if mounted.



To use the flash, simply pull up the unit by the tabs on each side. The flash position must be set manually, and once up, the flash unit will always fire regardless of the amount of ambient light. The following indicators will appear in the upper left corner of the EVF and LCD monitors to show the flash status.

	When pressing the shutter-release button partway down, the red flash icon indicates the flash is charging.
	When pressing the shutter-release button partway down, the white flash icon indicates the flash is ready to fire.
	After taking a picture, a blue flash icon appears if the flash properly exposed the subject.
	Flash warning. In backlit situations, the icon appears to recommend the use of the flash.

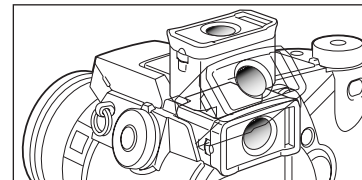
## FLASH RANGE - AUTOMATIC OPERATION

The camera will automatically control the flash output. For well-exposed images, the subject must be within the flash range. Because of the optical system, the flash range is not the same at the lens' wide-angle position as it is at the telephoto position.

Wide-angle position	0.5m ~ 3.8m (1.6 ft. ~ 12.5 ft.)
Telephoto position	0.5m ~ 3.0m (1.6 ft. ~ 9.8 ft.)

## HANDLING THE CAMERA

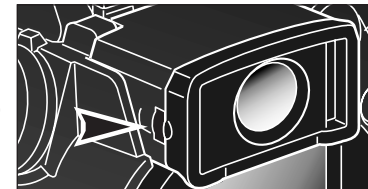
While using the electronic viewfinder (EVF) or LCD monitor, grip the camera firmly with your right hand while supporting the body with the palm of your left hand. Keep your elbows at your side and your feet shoulder-width apart to hold the camera steadily.



The electronic viewfinder can be tilted between 0° to 90°. Simply grip the finder between your fingers and move it to the position desired. Always store the camera with finder down against the body.

## DIOPTER ADJUSTMENT

The EVF has a built-in diopter that can be adjusted between -5.0 to +0.5. While looking through the EVF, turn the diopter-adjustment dial until the viewfinder image is sharp.



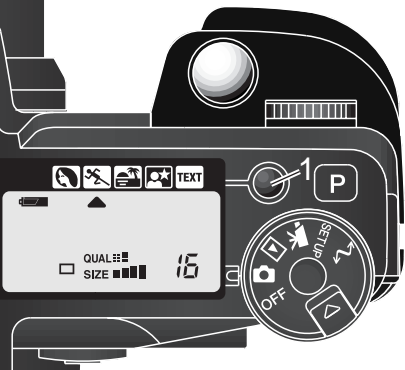
## CAMERA-SHAKE WARNING

If the shutter speed falls below the point where the camera can be hand held safely, the camera-shake warning will appear on the monitors; the shutter can still be released. Camera shake is slight blurring caused by subtle hand motion and is more pronounced at the telephoto setting of the lens than at the wide-angle. The warning appears at approximately the reciprocal of the focal length used; if the lens is set at 100mm, the camera shake warning will appear at 1/100 second. If the warning appears, the following steps can be taken:

- Place the camera on a tripod.
- Use the built-in flash.
- Increase the camera sensitivity (ISO) (p. 70).
- Zoom the lens towards the wide-angle position.



## DIGITAL-SUBJECT-PROGRAM BUTTON



The digital-subject-program button (1) optimizes the camera's performance for various conditions and subjects. Exposure, white-balance, and image-processing systems work in unison for beautiful results.

Pressing the digital-subject-program button cycles through the modes: portrait, sport action, sunset, night portrait, text, and the original exposure mode. A pointer will indicate the active subject program. The subject program will remain in effect until it is changed.



**Portrait** - optimized to reproduce warm, soft skin tones and a slight defocusing of the background.



**Sports action** - used to capture fast action by maximizing shutter speeds and tracking subjects with continuous AF.



**Sunset** - optimized to reproduce rich, warm sunsets.



**Night portrait** - for deep, subtle night scenes. When used with flash, the subject and background are balanced.



**Text** - for the crisp reproduction of black text on white backgrounds.



While camera performance is optimized for each shooting condition, some changes can be made to camera settings with subject programs. The autofocus mode can be changed (p. 83). The sports action mode uses continuous AF, the other modes use single AF. The Digital Effects Controller can be used to adjust image brightness, contrast, and color (p. 73). White balance can be changed in all modes except sunset and night portrait (p. 67). Sharpness can be changed in the sport action, sunset, and text modes (p. 99). The metering mode cannot be changed.

## Shooting tips

**Portrait** - Most portraits look best at a telephoto setting; the longer focal length does not exaggerate facial features and the shallower depth of field softens the background. Use the built-in flash with strong direct sunlight or backlight to reduce harsh shadows.

**Sports action** - When using a flash, make sure the subject is within the flash range (p. 30). The flash range can be extended by changing the camera sensitivity (p. 71). A monopod is more flexible and compact than a tripod when shooting events.

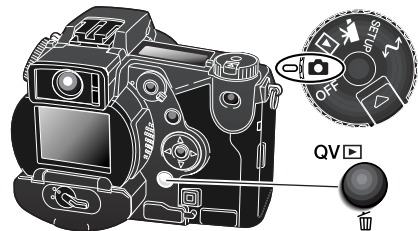
**Sunset** - When the sun is above the horizon, do not point the camera toward the sun for prolonged periods of time. The intensity of the sun could damage the CCD. Between exposures, turn off the camera or cover the lens.

**Night portrait** - When taking pictures of a landscape at night, use a tripod to eliminate blurring from camera shake. The flash can only be used with close subjects such as with a portrait of a person. When using the flash, ask your subjects not to move after the burst; the shutter will still be open for the background exposure.

**Text** - When taking pictures of small text on a sheet of paper, the macro mode (p. 47) can be used. Use a tripod to eliminate camera shake and ensure the sharpest images.

## BASIC PLAYBACK

Images can be viewed in the Quick View or playback modes. This section covers the basic functions in both modes. The playback mode has additional menu functions, see page 106.



To view images from the playback mode, turn the mode dial to the playback position.

To view images from the recording or movie recording modes, press the Quick View / delete button.

## SINGLE-FRAME PLAYBACK AND HISTOGRAM DISPLAY

Mode indicator

Image size (p. 84)

Image quality (p. 85)

Time of capture

Date of capture

Voice-memo indicator (p. 101)

Lock indicator (p. 111)

Print indicator (p. 114)

Frame number/ total number of images

Aperture value

Shutter speed

White-balance setting (p. 67)

Sensitivity setting (p. 70)

Degree of exposure compensation (p. 74)

Folder name (p. 140)

Folder number - image file number

Histogram (p. 17)

To view the histogram, press the up key.

## VIEWING IMAGES

When in the Quick view or playback mode, use the left/right keys of the controller to scroll through the images on the memory card.

To view the histogram of a still image, press the up key. Press the down key to return to single-frame playback.

To return to a recording mode from Quick View, press the menu button.

Controller

QV/Delete button

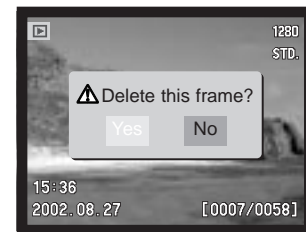
## DELETING SINGLE IMAGES

The displayed image can be deleted. Once deleted, an image cannot be recovered.

To delete a displayed image, press the QV/delete button; a confirmation screen will appear.

Use the left/right keys to highlight "Yes." "No" will cancel the operation.

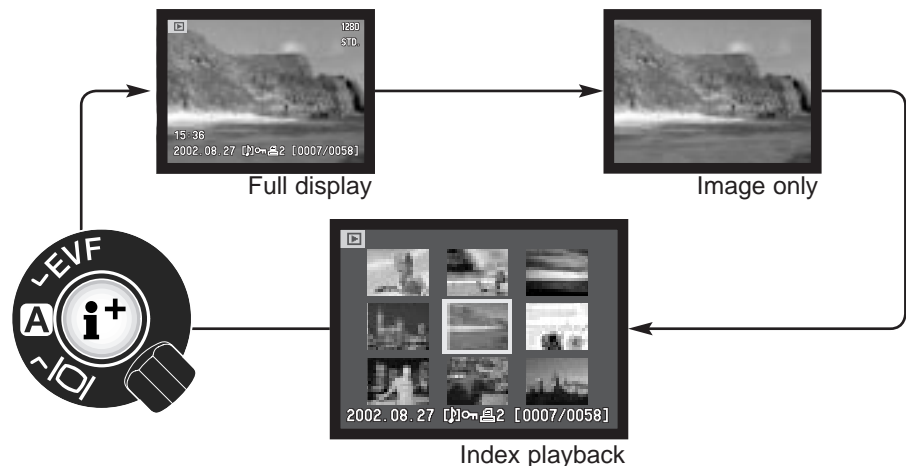
Press the controller to execute the command on the confirmation screen. The camera will return to playback mode.



Confirmation screen

## CHANGING THE QUICK VIEW & PLAYBACK DISPLAY

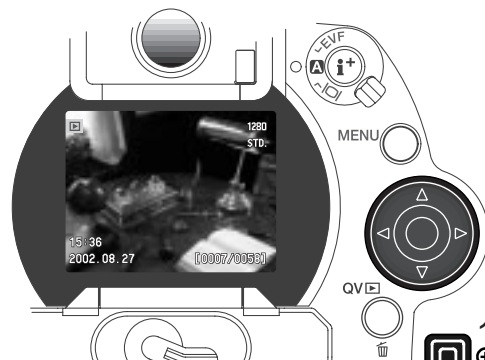
In the center of the display switch, the display-information button controls the display format. Each time the button is pressed, the display cycles through to the next format: full display, image only, index playback.



In index playback, the left/right keys of the controller will move the yellow border to the next or the previous image. When the image is highlighted with the border, the date of recording, voice-memo icon, the lock and printing status, and the frame number of the image are displayed at the bottom of the screen. The highlighted image can be deleted using the QV/delete button (p. 35) or an accompanying audio track can be played by pressing the central button of the controller. When the display information button is pressed again, the highlighted image will be displayed in the single-frame playback mode. A nine or four image index can be displayed. The index-playback format can be changed in the basic section of the playback-mode menu (p. 106).

## ENLARGED PLAYBACK

In single-frame playback, a still image can be enlarged for closer examination. Images can be magnified between 1.2X and 4.0X in 0.2X increments. 640 X 480 size images can only be magnified between 1.2X and 2.0X. RAW and super fine images cannot be enlarged.

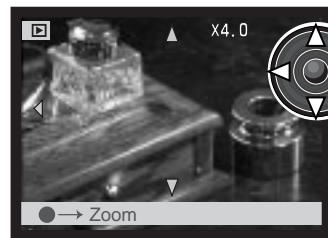


With the image to be enlarged displayed, press the magnification button (1). The degree of magnification is displayed on the monitors.



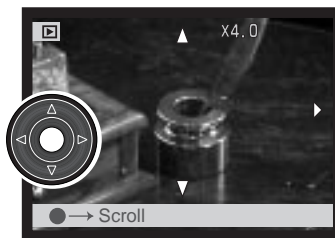
Use the up/down keys of the controller to adjust the magnification.

Press the central button of the controller to switch between the zoom and scroll functions. The scroll arrows or magnification display will turn blue to indicate the active function.



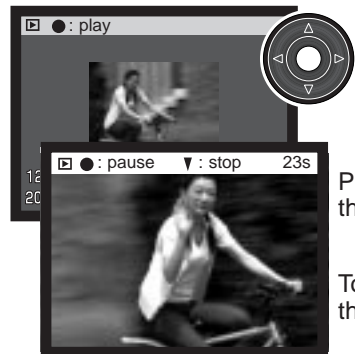
When the scroll arrows are blue, use the four-way key to scroll the image. Press and hold the four-way key to scroll continuously. Press the magnification button to exit the enlarged playback mode.

The guidance bar and display icons can be hidden or shown by pressing the display information button (i+).



## VIEWING MOVIES

Standard, Night, time-lapse, and UHS continuous-advance movies can be played back on the camera. Movie files are indicated by a icon at the bottom of the display. Standard and Night Movies are also indicated by a thumbnail of the first frame.



Press the center of the controller to play back the file.

Press the controller to pause the movie; pressing the controller again will resume the playback.

To cancel the playback, press the down key of the controller.

## PLAYING BACK VOICE MEMOS



Voice memos (p. 101) are indicated by the voice-memo indicator displayed at the bottom of the monitor image.

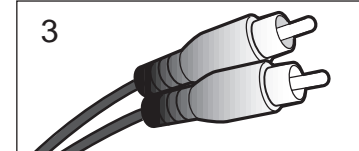
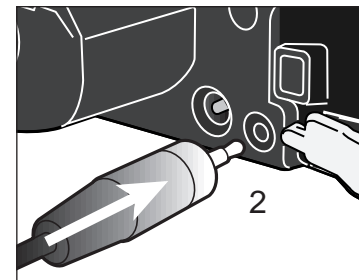
Press the central button of the controller to start the audio playback. To cancel the playback, press the down key.

— Controller

## VIEWING IMAGES ON A TELEVISION

It is possible to view camera images on your television. The camera has a video-out terminal which can be used to connect the camera to a television using the supplied AV cable. The camera is compatible with the NTSC and PAL standards. The video-output setting can be checked and set in the advanced 2 section of the setup menu (p. 118).

1. Turn off the television and the camera.
2. Insert the mini-plug end of the AV cable into the camera's AV-out terminal.
3. Plug the other end of the AV cable into the video and audio input terminal on the television. The yellow plug is for the video output, and the white plug is for the monaural audio output.
4. Turn the television on.
5. Change the television to the video channel.
6. Turn the camera's mode dial to the playback position. The camera's monitors will not activate when the camera is attached to a television. The playback-mode display will be visible on the television screen.
7. View images as described in the playback section. Use the television controls to adjust the volume of the audio playback. Because of the broadcast standard used to display television images, image quality and resolution will appear lower than when displayed on a computer monitor.





## ADVANCED RECORDING

This section contains detailed information on the camera's recording functions and operation. Read the sections pertaining to your interest and need.

### DISPLAY CONTROLS - RECORDING MODE

Located on the back of the camera, the display-mode switch and the display-information button control on which monitor the image is displayed and what information is included in the display. The three position switch allows the choice between automatic display and setting the display to the EVF or LCD monitor.



**Auto display** - the camera will automatically change between displaying the live image in the EVF or on the LCD monitor. The EVF's eye sensors monitor if the EVF is being used and switches the display location accordingly.



**EVF display** - the live image will only be displayed in the electronic viewfinder. Under bright light, the image is easier to see in the EVF than on the LCD monitor.

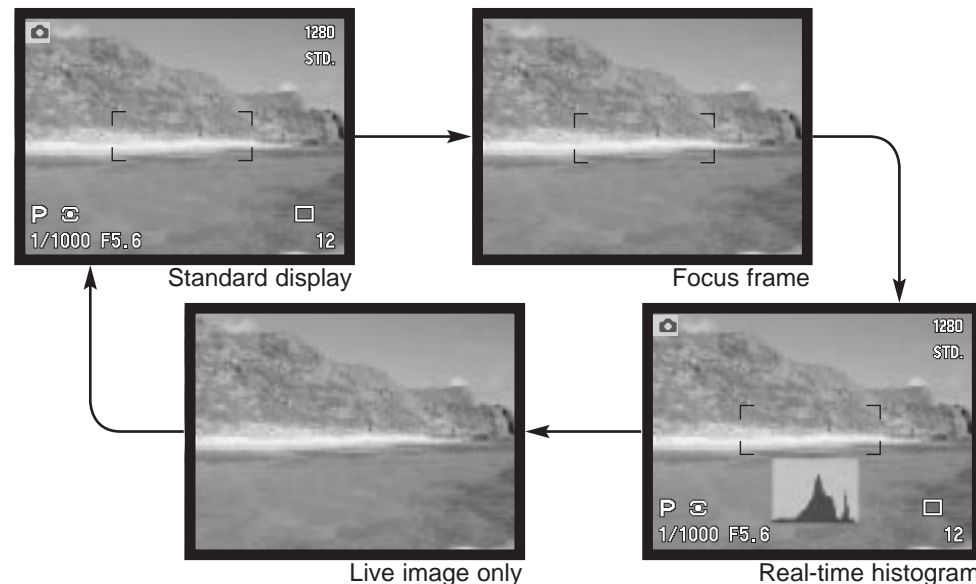


**LCD monitor display** - the live image will only be displayed on the LCD monitor.

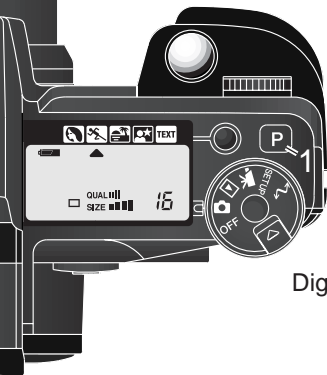
If battery power is a concern, have the eye sensor activate the EVF when in use, but not the LCD monitor. The auto-display function can be changed in the advanced 2 section of the setup menu (p. 118).



In the center of the display switch, the display-information button controls what information is displayed with the live image. Each time the button is pressed, the display cycles to the next format: standard display, focus frame, real-time histogram, and live image only. The number of screens and their formats can be changed in the advanced 1 section of the setup menu (p. 118).



The real-time histogram shows the approximate luminance distribution of the live image. This histogram will not be accurate when the monitor image is amplified (p. 28, 56), or the built-in or a compatible Minolta flash unit is used. The histogram of a recorded image may not have the same distribution as the real-time histogram.



## PRO-AUTO BUTTON

Simply pressing the pro-auto button (1) resets the camera to programmed and automatic functions in the still-image recording mode. The camera's systems work together to bring professional results leaving the operator free to concentrate on aesthetic decisions. The pro-auto button affects functions in either the recording or movie modes (p. 105) only when the mode is in use.

Digital subject program – Canceled (p. 32)

Exposure mode – Program (p. 53)

Drive mode – Single-frame advance (p. 58)

Focus mode – Single AF (p. 83)

Autofocus area – Wide (p. 44)

White balance – Auto white balance (p. 67)

Metering mode – Multi-segment metering (p. 51)

Exposure compensation – 0.0 (p. 74)

Contrast compensation – 0 (p. 76)

Color-saturation compensation – 0 (p. 77)

Filter – 0 (p. 77)

Flash control – ADI metering (p. 94)

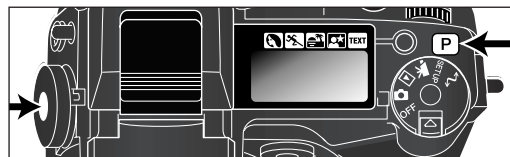
Flash compensation – 0.0 (p. 74)

Flash mode – Fill or red-eye reduction\* (p. 88)

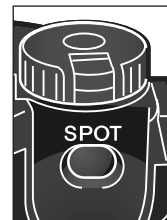
Sharpness – Normal (p. 99)

\*The flash mode is reset to whichever of the two modes was set last.

The last camera settings before the pro-auto button is pressed can be reset; press and hold the function button and press the pro-auto button.



## SPOT-AE LOCK BUTTON



The spot-AE lock button below the main dial on the back of the body locks the automatic exposure system. This function allows the exposure to be set by a specific element within the scene or a gray card outside the scene.



Spot metering display

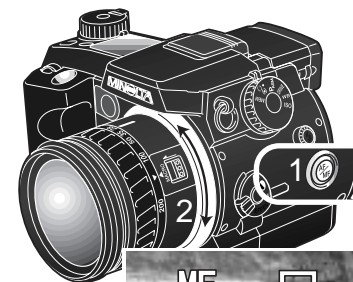
When the spot-AE lock button is pressed and held, the spot metering circle is displayed indicating the area used for the exposure calculation; the shutter speed and aperture of the exposure will be displayed in black on the monitor. The setting will remain in effect until the button is released. Focus is locked by pressing the shutter-release button halfway down.

The operation of the spot button can be customized in the advanced 1 section of the recording-mode menu (p. 96).

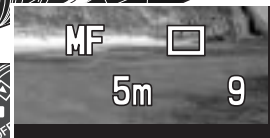
## MANUAL FOCUS

Manual control over focus is simple. The focus mode button (AF/MF) (1) switches between automatic and manual focus. The MF icon is displayed on the data panel and monitors when the camera is in the manual-focus mode.

Use the focus ring (2) at the rear of the lens barrel to make a sharp image on monitors. The approximate distance from the CCD to the subject is displayed near the frame counter. Manual focus can be used with movie recording and in macro mode.



Approximate location of the CCD plane.

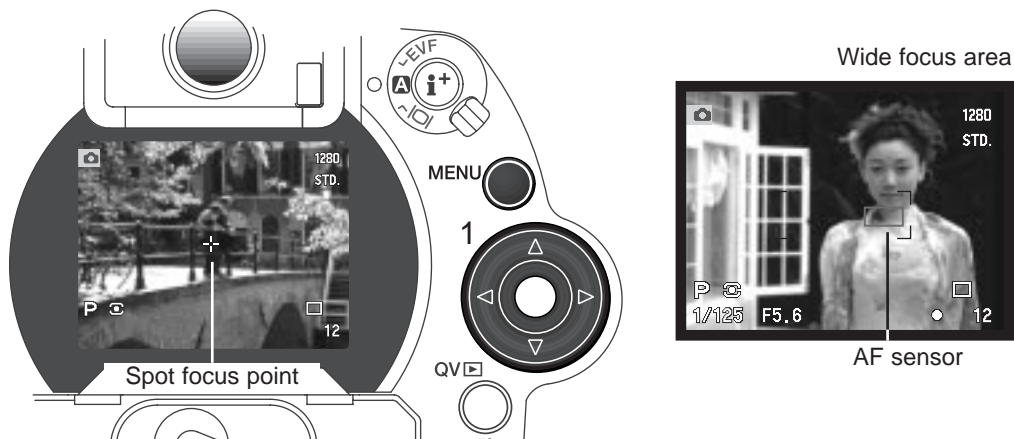




## AUTOFOCUS AREAS AND CONTROL

In still-image recording mode, the controller selects the focus area used and moves the spot-focus area within the image. The two focus areas, wide focus area and spot focus point, allow flexibility over a variety of situations.

The wide focus area is an array of local focus areas that work together to control focus. This system is especially effective with moving subjects or quick shooting during fast-moving events. When the focus is locked in single AF mode, one of the AF sensors within the wide focus area will briefly indicate the point of focus. The spot focus point gives critical control over focus. It can be used to single out an individual subject from a group.

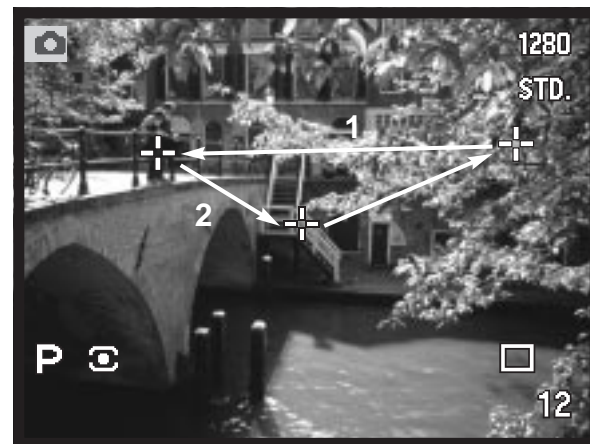


Switching between the wide focus area to the spot focus point is simple. Press and hold the central button of the controller (1) until the wide-focus-area frame lines change to the spot-focus-point cross. Press and hold the controller again to return to the wide-focus-area frame lines.

## FLEX FOCUS POINT

Once displayed, the spot focus area can be moved to any point in the image area. This Flex Focus Point is a powerful tool for off-center subjects. The Flex Focus Point cannot be used with the digital zoom (p. 46).

With the spot-focus-area cross displayed, use the controller's four-way keys (1) to move the focus point anywhere within the live image. Press the shutter-release button partway down to focus; the cross will turn red to confirm focus.

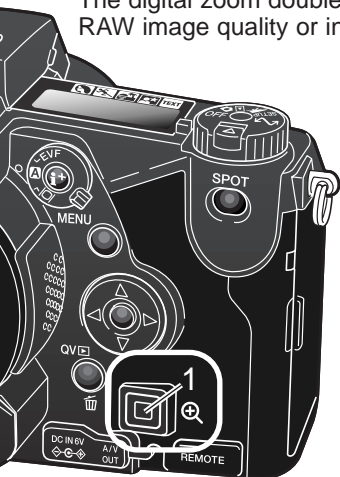


Pressing the central button of the controller (2) returns the focus point to the center of the image area. To return to the wide-focus-area mode press and hold the button until the wide-focus-area frame lines appear.



## DIGITAL ZOOM

The digital zoom doubles the lens magnification. The digital zoom cannot be used with RAW image quality or in movie recording.



Press the magnification button (1) on the back of the camera. The effect is immediately displayed. Pressing the magnification button a second time cancels the digital zoom.

The live image is enlarged on the LCD monitor and is cropped with a shaded border in the EVF. X2.0 is displayed in the monitors when the digital zoom is in effect. When using the wide focus area (p. 44), the AF sensor will not appear to indicate the point of focus.



When an image is taken with the digital zoom, the final image size depends on the image-size setting on the camera. The image is trimmed and then the total number of pixels are interpolated to produce an image with a pixel resolution shown in the chart.

	Image size setting			
	2560 X 1920	1600 X 1200	1280 X 960	640 X 480
Recorded image size	1280 X 960	1280 X 960	1280 X 960	640 X 480

1280 X 960 UHS continuous-advance images are resized to 640 X 480.

## MACRO MODE



The macro mode is used for close-up photographs of small objects. The macro mode can be used with the digital zoom to increase the close-up effect. Subject programs and movie recording can be used with the macro setting. The built-in flash cannot be used with macro mode.

Align one of the arrows on the zoom ring with the arrow next to the macro switch. The lens must be zoomed to the wide-angle or telephoto position for the macro switch to engage.

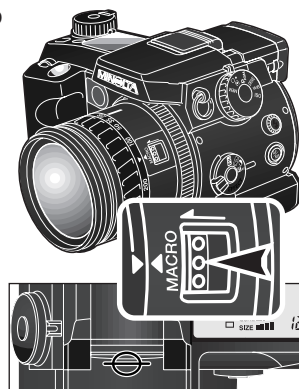
Slide the macro switch on the lens barrel forward. The camera is now in macro mode. The macro icon is displayed in the lower right corner of the monitors. Make sure the subject is within the macro focusing range:

Wide angle: 0.3 - 0.6m / 12 - 24 in from the CCD.

Telephoto: 0.25 - 0.6m / 10 - 24 in from the CCD.

The zoom ring will be locked at the wide-angle position in macro mode. At the telephoto position, the zoom ring can move slightly to make fine adjustments to image size.

To return to normal recording mode, slide the macro switch towards the rear of the lens.



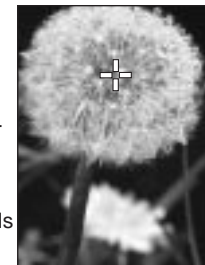
Approximate location of the CCD plane.

## Shooting tips

Because of the high image magnification, hand holding cameras during close-up photography is very difficult. When possible, use a tripod.

Use the Flex Focus Point (p. 45) to specify the area to be within focus. Because depth of field (the area in focus) is narrow in close-up photography, using focus lock with off-center subjects can cause minor errors which are exaggerated at high magnifications.

The variable position EVF makes working in tight spaces and at low levels easy. The EVF can be tilted between 0° and 90°.

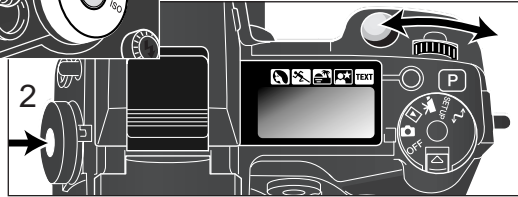


## SETTING THE FUNCTION DIAL

The memory function, metering mode, exposure mode, drive mode, white balance, and camera sensitivity are controlled by the function dial. Making changes with the function dial is simple. The function dial can only be used for still photography.



Turn the function dial to the mode to be changed (1).

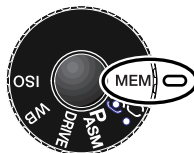


While pressing the button in the center of the function dial, turn the control dial near the shutter-release button to change the mode (2). Release the function button to set the mode. Changes are displayed on the monitors and data panel.

MEM	<b>Memory</b> - to store and recall camera settings (p. 50).
	<b>Metering modes</b> - changes the metering pattern (p. 51).
PASM	<b>Exposure modes</b> - changes the method of exposure control (p. 52).
DRIVE	<b>Drive modes</b> - changes the method of image capture (p. 58).
WB	<b>White balance</b> - changes between automatic, preset, and custom white balance (p. 67).
ISO	<b>ISO</b> - changes camera sensitivity (p. 70).

Dial	Display	Setting	Page	EVF & Monitor Display
MEM	Menu	Memory registers or the setting function are selected with a special menu displayed on the monitors.	50	
		Multi-segment	51	No data panel display.
		Center weighted		
		Spot		
PASM	P	Program	53	Display for the data panel, EVF and LCD monitor are the same unless indicated.
	A	Aperture priority	54	
	S	Shutter priority	55	
	M	Manual	56	
		Single-frame advance	58	
		Bracketing	62	
DRIVE		Continuous advance	59	
		High-speed continuous advance	60	
		UHS continuous advance	61	
		Interval	64	
		Self-timer	66	
		Automatic white balance	68	
WB		Daylight	68	
		Tungsten		
		Fluorescent 1 and 2		
		Cloudy		
		Custom setting 1 through 3	68	
		Custom calibration		
ISO		Automatic gain		(No display when set)
	100, 200, 400, 800.	Preset camera sensitivity in ISO equivalents.	70	ISO value is displayed

## MEMORY - STORING CAMERA SETTINGS



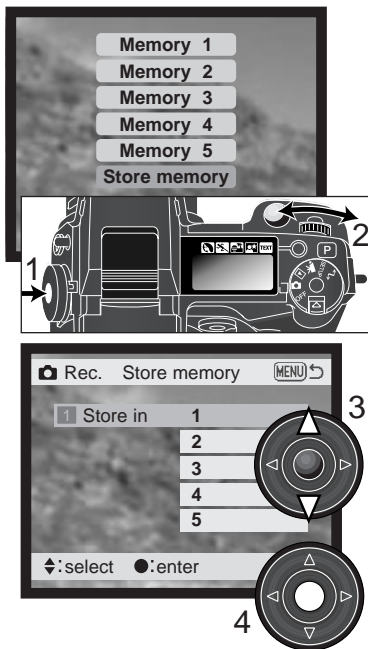
Five sets of camera settings can be saved. This saves time under frequently repeating conditions by eliminating the need to set the camera. Except for the spot AEL button, subject programs, data imprinting, voice memo, and instant playback settings, all recording-mode camera settings will be saved including the position of the Flex Focus Point, the display mode, the custom white balance setting, and changes made with the function dial and digital effects control.

Although the bracketing drive mode setting can be saved, the type of bracket, exposure, contrast, color saturation, or filter must be reset.

Camera settings are saved with the function dial (p. 48). Initially, each memory location contains the camera's original settings.

To save the current camera settings, turn the function dial to the memory position, and press the function button (1) to display the memory settings on the monitor. Turn the control dial (2) to highlight the store-memory option. Release the function button to open the store-memory screen.

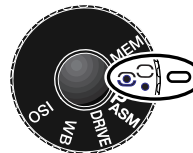
On the store-in-memory screen, use the up/down keys of the controller (3) to select the memory register in which the camera settings are to be saved. Press the central button of the controller (4) to save the settings; the previous settings will be erased and replaced by the new ones. A confirmation screen will open; press the central button of the controller to close.



To recall a setting, press the function button and highlight the memory register using the control dial. Release the function button to apply the memory settings. Memory settings can also be recalled using the digital subject program button, see page 129.

Camera settings cannot be deleted from memory by turning the camera off or using the pro-auto button. They will be erased with the default function on the setup menu.

## METERING MODES



The icons indicating the metering mode are displayed on the monitors only. Do not confuse these icons with the focus signals (p. 29). The metering mode is changed with the function dial (p. 48). When center-weighted or spot metering is selected, pressing the shutter-release button partway down will activate the exposure system, but will not lock the exposure; the spot AE lock button (p. 43) can be used to lock the exposure, but uses the spot metering area only.



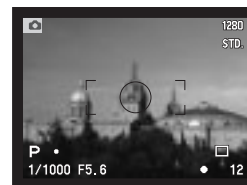
**Multi-segment** - uses 300 segments to measure luminance and color. This data is combined with distance information to calculate the camera exposure. This advanced metering system will give accurate worry-free exposures in almost all situations.



**Center weighted** - a traditional metering method in silver-halide cameras. The system measures light values over the entire image area with emphasis given to the central region.

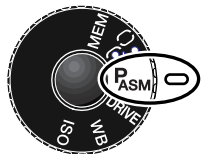


**Spot** - uses a small area within the image to calculate the exposure. When this mode is selected, a small circle will appear in the middle of the live image indicating the measuring area. The spot allows precise exposure measurements of a particular object without being influenced by extremely bright or dark areas within the scene.



Spot metering display

## EXPOSURE MODES



The four exposure modes allow extensive control over image making. Programmed AE gives carefree operation, aperture and shutter priority allow photographers to maximize exposures in different situations, and manual exposure provides complete freedom in controlling the final image. See setting the function dial section on page 48.

**P**

**Program** - the camera controls both the shutter speeds and aperture.

**A**

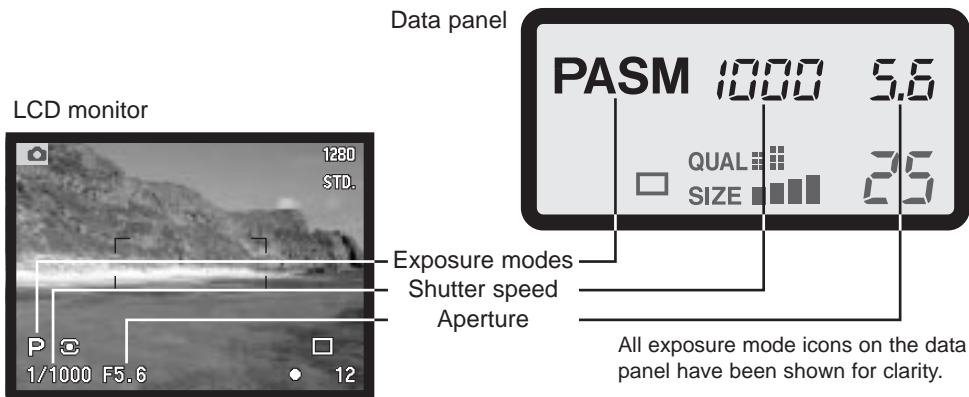
**Aperture priority** - the photographer selects the aperture and the camera sets the appropriate shutter speed.

**S**

**Shutter priority** - the photographer selects the shutter speed and the camera sets the appropriate aperture.

**M**

**Manual exposure** - the photographer selects both the shutter speed and aperture.



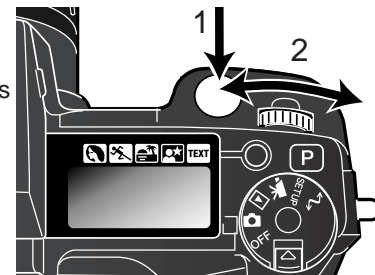
## PROGRAM - P

The programmed AE exposure control uses luminance and focal-length information to ensure perfect exposures. The sophisticated exposure system allows the photographer the freedom to shoot without having to worry about the technical details of exposure settings. The shutter speed and aperture values of the exposure are displayed on the monitors and data panel. The shutter speed range in program exposure mode is 8 to 1/4000 second when camera sensitivity is set to auto (p. 71). If the brightness level of the scene is outside the exposure control range of the camera, the shutter-speed and aperture displays will turn red on the monitors and blink on the data panel.

The program line adjusts with the changes in focal length of the zoom lens. The camera is programmed to maximize depth of field in the wide-angle range to provide sharp landscape pictures, and to maximize shutter speed in the telephoto range to minimize camera shake and blurred images. When the shutter speed falls below an acceptable limit for the camera to be hand held, the camera-shake warning appears in the lower left corner of the monitors (p. 31).

## PROGRAM SHIFT

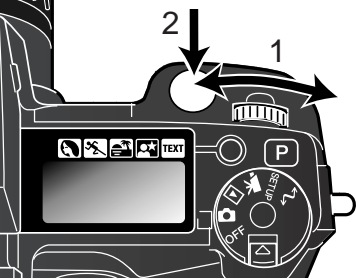
Although exposure calculations can be left to the camera, photographers can still have control over the final exposure with the program-shift function. As described in the basic recording operation (p. 31), press the shutter-release button partway down (1) until the shutter speed and aperture value are displayed. The control dial (2) can then be used to shift the shutter speed and aperture combination; each combination will give the optimum exposure.



The built-in flash cannot be used with program shift. The camera gives priority to the flash exposure; once the flash is raised, any changes made with the program shift will be canceled.



## APERTURE PRIORITY - A



The photographer selects the aperture and the camera sets the appropriate shutter speed to ensure correct exposure. When A mode is selected, the aperture value on the monitors turns blue.

Turn the control dial (1) to set the desired aperture. Press the shutter-release button partway down to activate the exposure system (2); the corresponding shutter speed will be displayed.

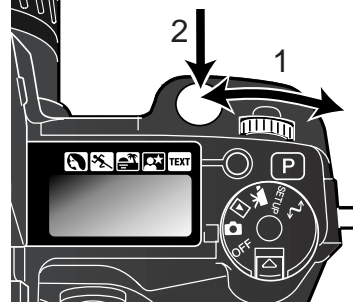
The aperture values can be changed by half stop increments between f/2.8 and f/8 at the lens' wide-angle position and f/3.5 to f/9.5 at the lens' telephoto position. If the aperture value is beyond the shutter-speed range, the shutter-speed display will blink on the data panel and turn red on the monitors. The shutter speed range in aperture-priority exposure mode is 15 to 1/4000 second when camera sensitivity is set to auto (p. 71).

When the shutter speed falls below an acceptable limit for the camera to be hand held, the camera-shake warning (p. 31) appears in the lower left corner of the EVF and LCD monitor. When the warning appears, decrease the aperture value until the warning disappears or place the camera on a tripod.

Because the shutter speeds can be adjusted in fine steps, the same shutter speed maybe displayed when the aperture is changed. With the camera sensitivity (ISO) set to auto, the shutter speed may not change when the aperture is adjusted.



## SHUTTER PRIORITY - S



The photographer selects the shutter speed and the camera sets the appropriate aperture to ensure correct exposure. When S mode is selected, the shutter speed on the monitors turns blue.

Turn the control dial (1) to set the desired shutter speed. Press the shutter-release button partway down to activate the exposure system (2); the corresponding aperture will be displayed.



The shutter speeds can be changed by half stop increments from 15 to 1/2000 second when camera sensitivity is set to auto (p. 71). If the shutter speed is beyond the aperture range, the aperture display will blink on the data panel and turn red on the monitors.

## Camera Notes

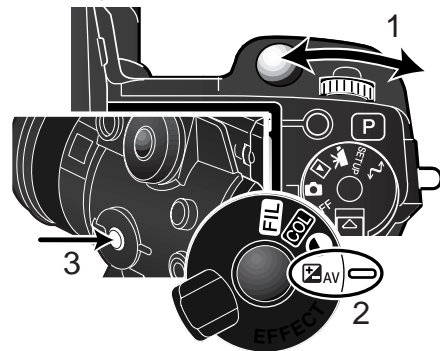
For 35mm photographers, an aperture range of f/2.8 to f/8 does not seem impressive. However, because of the CCD size and the actual focal length of the lens, the apertures on this digital camera give significantly more depth of field at any given angle of view with any given aperture than a 35mm camera. So even with the minimum aperture of f/8, the depth of field will give the coverage needed to create beautiful, sharp images.

## MANUAL EXPOSURE - M

Manual exposure mode allows individual selection of shutter speeds and apertures. This mode overrides the exposure system giving the photographer total control over the final exposure. The shutter speeds and aperture values can be changed in half stop increments. The shutter speed range in manual exposure mode is 15 to 1/2000 second including bulb when camera sensitivity is set to auto (p. 71). The camera sensitivity is set to ISO 100, but can be changed with the function dial (p. 48).



As changes are made to the exposure, the effect will be visible on the monitors. The shutter-speed and aperture display will blink on the data panel and turn red on the monitors if the image is extremely under or overexposed. If the monitors are black, increase the exposure until the image is visible; decrease the exposure if the monitors are white. If the monitor image is too dark because of the exposure setting, press the function button and display-information button (i+) at the same time to amplify the image; the M on the monitor will turn red. The AE system will maintain a bright image on the monitors, however, the image nor the real-time histogram will reflect the final exposure. Repeat the procedure to cancel the amplified display. When using the built-in flash, the monitor image is also amplified and does not reflect the ambient light exposure.



To set the shutter speed:

- Turn the control dial (1) to set the shutter speed.

To set the aperture:

- Set the digital effects switch (2) to the exposure-compensation position.
- While pressing the digital effects button (3), turn the control dial (1) to set the aperture. Flash compensation (p. 74) can also be set with the up/down key of the controller.

The operation of the manual exposure mode can be customized with the setup menu (p. 130).

## BULB EXPOSURES

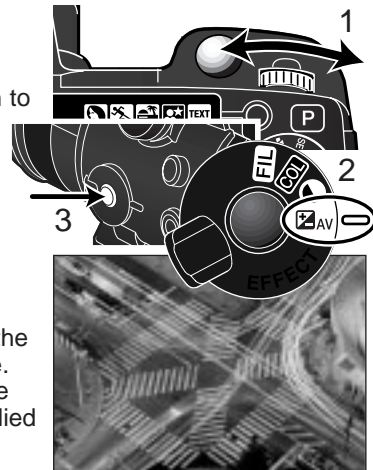
Bulb photographs can be taken in the manual-exposure mode (M). Exposures up to thirty seconds can be made by pressing and holding the shutter-release button. The use of a tripod and a remote cord is recommended for bulb exposures. The camera's exposure system cannot be used to calculate bulb exposures. The use of a separate light meter is recommended.

Use the control dial (1) to decrease the shutter-speed until "bulb" is displayed.

To set the aperture value, turn the digital effects switch to exposure compensation (2) position. While pressing the digital effects button (3), turn the control dial (1) until the correct aperture is displayed.

To take the picture, press and hold the shutter-release button for the duration of the exposure. Releasing the shutter button will end the exposure.

The monitors will be blank during the exposure. If on, the shutter sound effect will signal the end of the exposure. The monitors will remain blank for a period equal to the exposure time while noise-reduction processing is applied to the image.



## ATTACHING A REMOTE CORD (SOLD SEPARATELY)

The optional remote cords (RC-1000S or RC-1000L) can be used to reduce vibrations from touching the camera during long exposures.

Remove the remote-control terminal cover using the notch on the right side of the cover. The cover is attached to the body to prevent loss.

Insert the plug of the cord into the terminal.

